

METHOD AND SYSTEM FOR ELECTRIC POWER STEERING

ABSTRACT OF DISCLOSURE

[0024] An electric power steering system, comprising: a steering wheel in operable communication with a mechanical linkage; a steering shaft in operable communication with the mechanical linkage, and in operable communication with at least one road wheel; a first transmission in operable communication with the steering shaft; a unidirectional electric motor in operable communication with the first transmission; wherein the electric power steering system is configured such that when the steering wheel is turned in a first direction, the motor's power is transmitted in the first direction to the steering shaft, and when the steering wheel is turned in a second direction, the motor's power is transmitted in the second direction to the steering shaft. A method for providing power assist for an electric power steering system, the method comprising: rotating a first body in a first direction with a unidirectional motor; rotating a second body in a second direction with the unidirectional motor; providing a power assist from the first body when a steering wheel is turned in a first direction; and providing a power assist from the second body when a steering wheel is turned in a second direction. In a third direction when a steering wheel is turned in a third direction thereby providing a power assist to the steering shaft in the third direction.